WHAT IS CLAIMED IS:

~~1. An apparatus for increasing a digital camera image capture rate, comprising:~~

an imaging device for capturing an image in response to an image capture request;

a memory device coupled to the imaging device for storing said image and for storing routines that process the image, including

first routines for transferring the image between different locations within the memory device to provide space for storing additional, subsequently captured images,

second routines for processing and compressing said image, and

third routines for prioritizing the order in which the first and second routines are executed; and

a central processing unit coupled to the memory device for executing ~~the first, second and~~ third routines.

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~~2. The apparatus of claim 1, wherein:~~

the memory device is comprised of a RAM and a ROM;

the RAM is comprised of a frame buffer and a RAM disk;

the ROM is comprised of a control application process, a spooler process and an image processing/compression process;

the control application process commands the imaging device to capture the image and place it in the frame buffer;

the spooler process, having the highest priority for execution by the central processing unit, transfers the image from the frame buffer to the RAM disk; and

~~the image processing/compression process transforms the image.~~

3. A method for increasing a digital camera image capture rate, comprising the steps of:

capturing an image upon detecting an image capture request;

storing the image in a memory device;

repeating the capturing and storing steps if another image capture request is detected; and

performing image processing and compression on the image.

~~4. The method of claim 3, the method further comprising the steps of:~~

halting the image processing/compression step and returning to the capturing step if another image capture ~~request~~ is detected; and

resuming the image processing/compression step after the capturing, ~~storing and repeating steps have been performed.~~

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~~5.~~ The method of claim ~~3~~ further comprising the steps of:

deleting the image before the storing step if an image deletion request is detected; and

deleting the image before the image processing/compression step if the image deletion request is detected.

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~~6.~~ The method of claim ~~3~~ wherein:

the image is a raw image;

the capturing step further comprises the step of placing the raw image in a frame buffer;

the memory device is comprised of a first memory device and a second memory device, and

the storing step further comprises the steps of:

(a) skipping to step (e), if the first memory device does not have room for another raw image;

(b) copying the raw image from the frame buffer to the first memory device;

(c) deleting the raw image from the frame buffer;

(d) returning to said capturing step if another raw image capture request is detected;

(e) skipping to the image processing and compression step if the second memory device does not have room for another raw image;

(f) copying the raw image from the first memory device to the second memory device;

(g) halting step (f) and returning to step (a) if the image capture request is detected;

(h) deleting the raw image from the first memory device; and

(i) returning to step (b) if another raw image can be moved from the frame buffer to the first memory device.

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47. The method of claim 3, wherein the image processing and compression step further comprises the steps of:

processing the raw image from the frame buffer if the raw image is located in the frame buffer;

processing the raw image from the first memory device if the raw image is located in the first memory device;

processing the raw image from the second memory device if the raw image is located in the second memory device;

halting the image processing and compression step and returning to said capturing step if the image capture request is detected;

halting the image processing and compression step and returning to step (b) if at least one more raw image can be copied from the frame buffer to the first memory device;

halting the image processing and compression step and returning to step (f) if at least one more raw image can be copied from the first memory device to the second memory device; and

storing a compressed image in a memory device.

58. The method of claim 4 wherein the first memory device is a RAM disk and the second memory device is a removable flash memory.

59 (a2) 9. An apparatus for increasing a digital camera image capture rate, comprising:

means for capturing an image upon detecting an image capture request;

means for storing the image in a memory device;

means for repeating the capturing and storing if another image capture request is detected; and

means for performing image processing and compression on the image.

~~10. The apparatus of claim 9 further comprising:~~

means for halting the image ~~processing~~ and compression means and returning to the capturing means if another image capture request is detected; and

means for resuming the image processing and compression means after the capturing, storing and repeating means have been ~~performed.~~

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~~11.~~ The apparatus of claim ~~9~~ further comprising:

means for deleting the image before the storing means if an image deletion request is detected; and

means for deleting the image before the image processing and compression means if the image deletion request is detected.

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~~12.~~ The apparatus of claim ~~9~~ wherein:

the image is a raw image;

the means for capturing further comprises means for placing the raw image in a frame buffer;

the memory device is comprised of a first memory device and a second memory device, and

the storing means further comprises:

(a) means for skipping to means (e) if the first memory device does not have room for another raw image;

(b) means for copying the raw image from the frame buffer to the first memory device;

(c) means for deleting the raw image from the frame buffer;

(d) means for returning to means for capturing if another raw image capture request is detected;

(e) means for skipping to the image processing and compression means if the second memory device does not have room for another raw image;

(f) means for copying the raw image from the first memory device to the second memory device;

(g) means for halting means (f) and returning to means (a) if the image capture request is detected;

(h) means for deleting the raw image from the first memory device; and

(i) means for returning to means (b) if another raw image can be moved from the frame buffer to the first memory device.

9 13. The apparatus of claim 8, wherein the image processing and compression means further comprises:

means for processing the raw image from the frame buffer if the raw image is located in the frame buffer;

means for processing the raw image from the first memory device if the raw image is located in the first memory device;

means for processing the raw image from the second memory device if the raw image is located in the second memory device;

means for halting the image processing and compression means and returning to the means for capturing if the image capture request is detected;

means for halting the image processing and compression means and returning to means (b) if at least one more raw image can be copied from the frame buffer to the first memory device;

means for halting the image processing and compression means and returning to means (f) if at least one more raw image can be copied from the first memory device to the second memory device; and

means for storing a compressed image in a memory device.

14. The apparatus of claim 9 wherein the first memory device is a RAM disk and the second memory device is a removable flash memory.

15. A computer readable medium comprising program instructions for:

capturing an image upon detecting an image capture request;

storing the image in a memory device;

repeating the capturing and storing steps if another image capture request is detected; and

performing image processing and compression on the image.

~~16. The medium of claim 15 further comprising instructions for:~~

halting the image processing and compression step and returning to the capturing step if another image capture request is detected; and

resuming the image processing and compression step after the ~~capturing, storing and repeating steps have been performed.~~

12, 17. The medium of claim 11 further comprising instructions for:

deleting the image before the storing step if an image deletion request is detected; and

deleting the image before the image processing and compression step if the image deletion request is detected.

13 11
18. The medium of claim 15 wherein:

the image is a raw image;

the capturing step further comprises the step of placing the raw image in a frame buffer;

the memory device is comprised of a first memory device and a second memory device, and

the storing step further comprises the steps of:

(a) skipping to step (e) if the first memory device does not have room for another raw image;

(b) copying the raw image from the frame buffer to the first memory device;

(c) deleting the raw image from the frame buffer;

(d) returning to said capturing step if another raw image capture request is detected;

(e) skipping to the image processing and compression step if the second memory device does not have room for another raw image;

(f) copying the raw image from the first memory device to the second memory device;

(g) halting step (f) and returning to said capturing step if the image capture request is detected;

(h) deleting the raw image from the first memory device; and

(i) returning to step (b) if another raw image can be moved from the frame buffer to the first memory device.

14 ~~19~~. The medium of claim 13 ~~18~~ wherein the image processing and compression step further comprises the steps of:

processing the raw image from the frame buffer if the raw image is located in the frame buffer;

processing the raw image from the first memory device if the raw image is located in the first memory device;

processing the raw image from the second memory device if the raw image is located in the second memory device;

halting the image processing and compression step and returning to said capturing step if the image capture request is detected;

halting the image processing and compression step and returning to step (b) if at least one more raw image can be copied from the frame buffer to the first memory device;

halting the image processing and compression step and returning to step (f) if at least one more raw image can be copied from the first memory device to the second memory device; and

storing a compressed image in a memory device.

15 ~~20~~. The medium of claim 14 ~~19~~ wherein the first memory device is a RAM disk and the second memory device is a removable flash memory.

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